



# ecology and environment, inc.

International Specialists in the Environment

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## MEMORANDUM

DATE: June 23, 2008

TO: Renee Nordeen, START-3 Project Manager, E & E, Seattle, WA

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington *mw*

SUBJ: **Inorganic Data Summary Check,  
Bremerton Gasworks Properties, Bremerton, Washington**

REF: TDD: 07-01-0008 PAN: 002233.0178.01BR

The data summary check of 2 water samples collected from the Bremerton Gasworks Properties site located in Bremerton, Washington, has been completed. Analysis for Target Analyte List (TAL) metals (EPA CLP SOW ILM05.4) was performed by Bonner Analytical, Hattiesburg, Mississippi.

The samples were numbered:

MJ8K21 MJ8K36

A cursory assessment of the data was provided with no qualifiers added. The secondary reviewer applied "Q" bias qualifiers to positive results less than the Contract Required Quantitation Limit.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101

June 17, 2008

Reply To  
Attn. Of: OEA-095

MEMORANDUM

SUBJECT: Data Transmittal for Bremerton Gasworks TBA,  
Case# 37435, SDG: MJ8K21, Inorganic Analysis

FROM: Donald Matheny, Chemist *DM*  
Environmental Services Unit, OEA

TO: Joanne LaBaw, Project Manager  
Office of Environmental Cleanup (ECL-115)

CC: Renee Nordeen, Ecology & Environment

The following data are being transmitted for the above project. Two (2) water samples were analyzed for total elements by Bonner Analytical, Hattiesburg, MS. Sample numbers for this delivery group are:

MJ8K21      MJ8K36

A cursory assessment of the data indicates the following:

The matrix spike and duplicate sample analyses were compliant.

Serial dilution percent differences ranged from 18-61% for cobalt, lead, nickel and zinc with an indication of low bias. Values for these elements should be estimates.

## USEPA - CLP

1A-IN

09

## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MJ8K21

b Name: Bonner Analytical Testing CompaContract: EPW06055b Code: BONNER Case No.: 37435

NRAS No.: \_\_\_\_\_

SDG NO.: MJ8K21Matrix (soil/water): WATERLab Sample ID: 0805065-01Level (low/med): LOWDate Received: 05/21/2008Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight):

UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	1.9	JQ		MS
7440-39-3	Barium	21.5			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	0.14	JQ		MS
7440-47-3	Chromium	2.8			MS
7440-48-4	Cobalt	1.9		E	MS
7440-50-8	Copper	4.9			MS
7439-92-1	Lead	2.5		E	MS
7439-96-5	Manganese	454			MS
7440-02-0	Nickel	5.8		E	MS
7782-49-2	Selenium	0.88	JQ		MS
7440-22-4	Silver	0.04	JQ		MS
7440-28-0	Thallium	0.26	JQ		MS
7440-62-2	Vanadium	4.7	JQ		MS
7440-66-6	Zinc	62.4		E	MS

Color Before: COLORLESSClarity Before: CLEAR

Texture: \_\_\_\_\_

Color After: COLORLESSClarity After: CLEAR

Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

BREMERTON-013217

## USEPA - CLP

1A-IN

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## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MJ8K36

Lab Name: Bonner Analytical Testing Compa Contract: EPW06055

Lab Code: BONNER Case No.: 37435 NRAS No.: \_\_\_\_\_ SDG NO.: MJ8K21

Matrix (soil/water): WATER Lab Sample ID: 0805065-02

Level (low/med): LOW Date Received: 05/21/2008

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	2.0	U		MS
7440-39-3	Barium	5840			MS
7440-41-7	Beryllium	13.6			MS
7440-43-9	Cadmium	2.0			MS
7440-47-3	Chromium	1090			MS
7440-48-4	Cobalt	89.5		E	MS
7440-50-8	Copper	293			MS
7439-92-1	Lead	179		E	MS
7439-96-5	Manganese	8840		D	MS
7440-02-0	Nickel	458		E	MS
7782-49-2	Selenium	2.9	JC		MS
7440-22-4	Silver	0.72	JC		MS
7440-28-0	Thallium	1.7			MS
7440-62-2	Vanadium	926			MS
7440-66-6	Zinc	417		E	MS

Color Before: BROWN Clarity Before: CLOUDY Texture: \_\_\_\_\_

Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

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